City of Bellevue

Transportation Commission Study Session

DATE: December 7, 2017

TO: Chair Bishop and Members of the Transportation Commission

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SUBJECT: Level-of-Service in Bellevue – Toward a Multimodal Approach to Mobility

DIRECTION REQUESTED

	Action
X	Discussion
X	Information

On April 13, 2017, the Transportation Commission approved a recommendation to establish metrics, standards and guidelines for vehicle, pedestrian, bicycle and transit modes. Attachment A is a summary of the Commission's MMLOS recommendation.

At the study session on December 14, 2017, staff and the consultants at Fehr & Peers will review and discuss a methodology to identify and prioritize projects using MMLOS standards and guidelines.

No action is requested of the Transportation Commission at this meeting. The discussion on December 14 will explore a comprehensive, citywide approach to identify potential projects to improve LOS for all modes, using two example corridors. Ultimately the Commission will be asked for recommendations on using MMLOS to identify and prioritize projects in the Capital Investment Program, to secure off-site improvements through Development Review, and to allocate resources for non-motorized facilities through transportation Impact Fees.

BACKGROUND

The Transportation Commission's MMLOS Final Report contains the recommended level of service metrics, standards and guidelines for each mode – vehicles, pedestrians, bicycles, and transit. It also outlines a summary of the next steps that we are now taking toward identifying projects, prioritizing projects and documenting trade-offs.

MMLOS FOR PROJECT IDENTIFICATION AND PRIORITIZATION

The significant value of using a Multimodal Level of Service methodology is that informed choices can be objectively evaluated and easily communicated in the event of constrained resources or overlapping/conflicting level-of-service expectations between modes.

Using MMLOS to Identify Projects for Each Mode

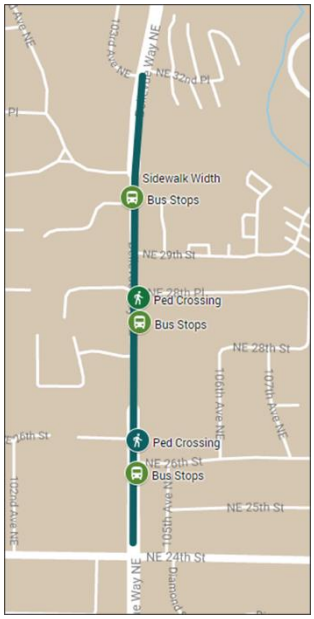
MMLOS provides standards and guidelines for each mode. A level of service "gap" exists in situations where an existing facility does not meet the expectation for that mode. For instance, in a Neighborhood Shopping Center, an existing 5-foot sidewalk adjacent to the curb does not meet the pedestrian facility standard that describes a minimum 13-foot wide sidewalk plus landscape buffer. That level of service gap identifies the need for a project. To illustrate the point, consultants will describe a gap analysis for two corridors: Bellevue Way between NE 24th Street and SR-520 near the Northtowne Shopping Center, and 156th Avenue NE in the Crossroads activity center.

Using MMLOS to Identify Priorities for Each Mode

Staff and the Transportation Commission are using this information to help identity project priorities for the Neighborhood Sidewalk Program and the Neighborhood Congestion Reduction Program. Also, the Wilburton Commercial Area CAC is using MMLOS standards and guidelines to help shape a mobility recommendation for the potential redevelopment of the area.

Using MMLOS to Make Informed Prioritization/Trade-off Decisions on Multimodal Projects

Situations often arise where neither the funding nor the right-of-way is available, or some other constraint does not allow for the implementation of the intended facilities for each mode on corridors and at intersections. The MMLOS methodology may be a useful tool to identity modal prioritization and potential trade-offs. This chart, and accompanying map have been prepared for discussion on December 14. They illustrate a MMLOS tool to help identify relationships between projects along Bellevue Way.



Mode	Project	Auto Intersection	Auto Corridor	Ped Sidewalk	Ped Crosswalk	Bicycle	Transit Stop	Transit Speed
Auto	LOS met. No project needed	0	0	0	0	0	0	0
Ped	Widen sidewalks, add landscape buffer	0	0	+	0	0	0	0
Ped	Add two crosswalks	0	-	0	+	0	0	-
Bike	No LOS standard. No project	0	0	0	0	0	0	0
Transit	Add bus stop features for passengers	0	0	0	0	0	+	0

ATTACHMENT A

Transportation Commission MMLOS Recommendation Summary Table

MMLOS SUMMARY Transportation Commission Approved April 13, 2017			
Mode	LOS Metric	LOS Standard	LOS Guideline
Vehicle	Volume/Capacity or Average Delay at Intersections	V/C: 0.80-0.95. Delay: 20-80 sec. Varies by land use context	
	Typical Urban Travel Time/Speed on Arterials		Percent of posted speed limit, LOS varies by neighborhood context
Pedestrian	Sidewalk and Landscape Width	12-20 feet Varies by land use context	
	Pedestrian Comfort, Access and Safety at Intersections		Design varies by land use context
Bicycle	Level of Traffic Stress on Corridors		Design to achieve LTS varies by roadway traffic speed and volume
	Level of Traffic Stress at Intersections		Maintain corridor LTS at intersections. Design components vary by context
Transit	Passenger Comfort, Access and Safety		Varies by transit stop/station typology
	Transit Travel Speed on Corridors		14 mph on Frequent Transit Network corridors between activity centers